

US Serial No. 10/56589
Page 4 of 14

Remarks:

Regarding objections to the specification:

Pursuant to M.P.E.P 1.121 please enter the following amendments to the specification.

At page 3 of the application, please amend the following paragraph as indicated:

The viscosity of the two liquids should preferably similar to ensure equal discharge of the liquid. However, if the viscosities are significantly different, it may possible to compensate for this by making one of the nozzles larger. Preferably, the viscosity of each liquid is less than 1000 cps ~~Gps~~ and more preferably less than 500 cps ~~Gps~~. Suitable liquids include standard bleach (which has a viscosity of around 500 cps ~~Gps~~) and Harpic (RTM) limescale which has a viscosity of around 380 cps ~~Gps~~. Liquids having a viscosity similar to that of water (1 cps ~~Gps~~) are suitable for use in this way.

Which following entry of the foregoing amendments should now read:

The viscosity of the two liquids should preferably similar to ensure equal discharge of the liquid. However, if the viscosities are significantly different, it may possible to compensate for this by making one of the nozzles larger. Preferably, the viscosity of each liquid is less than 1000 cps and more preferably less than 500 cps. Suitable liquids include standard bleach (which has a viscosity of around 500 cps) and Harpic (RTM) limescale which has a viscosity of around 380 cps. Liquids having a viscosity similar to that of water (1 cps) are suitable for use in this way.

US Serial No. 10/56589
Page 5 of 14

Regarding objections to claims 9 and 12:

Appropriate amendments have been entered to claims 9 and 12 which are believed to fully address and overcome the Examiner's objections.

Regarding the rejection of claims 1-3, 6-7 and 11 under 35 USC 102(b) in view of US 5458262 to Keller (hereinafter simply "Keller"):

The applicant respectfully traverses the Examiner's rejection of the foregoing claims based on the Keller reference.

Prior to discussing the relative merits of the Examiner's rejection, the applicant points out that unpatentability based on "anticipation" type rejection under 35 USC 102(b) requires that the invention is not in fact new. See *Hoover Group, Inc. v. Custom Metalcraft, Inc.*, 66 F.3d 299, 302, 36 USPQ2d 1101, 1103 (Fed. Cir. 1995) ("lack of novelty (often called 'anticipation') requires that the same invention, including each element and limitation of the claims, was known or used by others before it was invented by the patentee").

Anticipation requires that a *single reference* [emphasis added] describe the claimed invention with sufficient precision and detail to establish that the subject matter existed in the prior art. See, *In re Spada*, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990).

The currently presented claims are believed to be unanticipated by the Keller reference. As can be readily understood from a review of Keller, the device disclosed therein is directed to a combination device which necessarily includes both a "cartridge", e.g., as per Fig. 5 of Keller, which is necessarily coupled to a "mixer", e.g. 16, 20 as per Figs. 1, 3 of Keller "in use", as the various elements provided by Keller are specifically intended to establish a specific relationship between corresponding elements of Keller's cartridge and Keller's mixer housing.

US Serial No. 10/56589
Page 6 of 14

This is succinctly stated by Keller where he recites:

From this background, it is the object of the invention to provide a method for an aligned attachment of the mixer to a cartridge, and means for carrying out said method, which is not limited to an attachment by means of a bayonet lock but are generally applicable. This object is attained by a method wherein the aligning means of said mixer are brought into engagement with the corresponding aligning means of said cartridge outlet in the process of attaching said mixer to the dispensing end of said cartridge, and said mixer is secured; and by a cartridge and a mixer for carrying out said method, wherein said aligning means of said mixer comprise at least one ledge engaging in a corresponding groove of the neck of the cartridge coupling or at least one recess receiving a nose of the cartridge coupling; and furthermore, by a multiple cartridge and a mixer for carrying out said method, wherein said aligning means of the mixer include a slot or a portion in an extended wall of the first mixing helix, the separating wall between the outlets of the storage cylinders matching said slot or said portion.

From the foregoing it is clear that "in use", Keller's cartridges never have "... passageway having an opening to the atmosphere at a nozzle in use through which a stream of liquid is formed ..." as is presently claimed. Accordingly Keller cannot be seen to anticipate the currently amended claims, and accordingly reconsideration and withdrawal of the current rejection in view of Keller is respectfully requested.

Regarding the rejection of claim 4 under 35 USC 102(b) in view of US 5647510 to Keller (hereinafter simply "Keller '510"):

The applicant respectfully traverses the Examiner's rejection of claim 4 based on the Keller'510 reference.

Similarly to the prior Keller reference, the current Keller'510 reference can be similarly distinguished over the currently claimed invention and acting each and every one of the

US Serial No. 10/56589

Page 7 of 14

embodiments disclosed in the Keller'510 document, there is necessarily an included "mixer" in each of the three recited embodiments. Namely, with respect to the first embodiment it is recited (at column 2 of Keller'510) that:

40 The outer package tube 2A is attached at its outlet end to
a second outlet piece 10, comprising a common nozzle 11
having an outer thread 12 to which a mixing device 13,
known per se, can be fastened by means of a retaining nut
14. This outlet piece 10 is removably attached to the rigid
45 housing 4, for example by means of a snap-on device 15.

With regard to the second embodiment of Keller'510 is recited (at col. 4) :

FIG. 5 shows a sectional view of an improved, second
embodiment of the invention, wherein also the front part of
the cartridge is re-usable. FIG. 5 refers also to a coaxial
5 two-component cartridge 50 having an outer package assembly
51 and a inner package assembly 52, contained in a
cylindrical rigid housing 53. In these embodiments both
package tubes are fastened individually to the outlet pieces
and to the rear pieces.

9 The inner package tube 52A is secured at its outlet end by
bonding or other already disclosed means to a circular outlet
piece 54 ending in an inner nozzle 55 of the common nozzle
of the re-usable cartridge front piece 57, on which in turn the
5 mixing device 13 can be fastened. The outer package tube

The third embodiment of Keller'510 similarly recites (at col.) that:

FIG. 7 shows a third embodiment of the invention 20
wherein the two package assemblies are arranged side-by-
side, whereas the principle to empty the package assemblies
by one piston and to re-use the cartridge front piece, the
cylindrical cartridge housing as well as the piston is main- 25
tained.

Each package tube 81A, 82A is fastened at its outlet end
to a D-shaped outlet piece 83, 84 which nozzle 85, 86 having
each a sealing ring 87, 88 is inserted into a corresponding
opening in a cartridge front piece 89 having a common 30
nozzle 90 for connection to the mixing device 13. In this
particular embodiment the cartridge front piece is fastened
to the cylindrical housing 91 by a spring clip 92 reaching
behind a projection 93 at housing 91.

US Serial No. 10/56589
Page 8 of 14

Thus, it should be quite clear from the foregoing that "in use" the Keller'510 device fails to provide a device having "... passageway having an opening to the atmosphere at a nozzle in use through which a stream of liquid is formed ..." as is presently claimed. Accordingly Keller'510 cannot be properly seen to anticipate the currently amended claims, and accordingly reconsideration and withdrawal of the current rejection in view of Keller is respectfully requested.

Regarding the rejections of claim 5 under 35 USC 102(b) in view of US 4240566 to Bergman (hereinafter simply "Bergman"):

The applicant respectfully traverses the rejection of claim 5 as being anticipated by the Bergman reference.

With regard to Bergman, the reference illustrates a dispenser which includes a rotatable, displaceable cap 100 through which, via an opening, two fluids may be dispensed wherein some partial mixing may occur. Bergman recites this feature (at col. 4) when he states that:

Thus, if the collar 116 is rotated in one angular sense, the cap 100 will be pulled down tighter toward the body 12, and the bulbous enlargement 122 centrally provided on the forward end of the web will be seal-
a 55 ingly jammed into the dispenser opening 110 as shown in FIGS. 2 and 5, closing the opening and pushing out any mixed components PC₁/PC₂ found therein. If the collar 116 is rotated in the opposite angular sense, the cap 100 will be projected forwards opening up a gap in
s 60 and back of the opening 110, between the end wall 108 and the bulbous boss 122, so that contents PC₁/PC₂ may be jointly dispensed in a joint stream as shown in FIG. 3, by turning the rotatable actuator 16. The amount by

However, upon a closer view of the Bergman reference it becomes quite apparent that the device according to this prior art document fails to anticipate, or for that manner suggest

US Serial No. 10/56589
Page 9 of 14

the invention is presently claimed. From the foregoing, the Bergman device fails to provide a device having "... passageway having an opening to the atmosphere at a nozzle in use through which a stream of liquid is formed ..." as is presently claimed. Accordingly Bergman cannot be properly seen to anticipate the currently amended claims, and accordingly reconsideration and withdrawal of the current rejection in view of Bergman is respectfully requested.

Regarding the rejection of claim 8 under 35 USC 103(a) in view of US 5458262 to Keller in view of US 6439433 to Dubach (hereinafter simply "Dubach"):

The applicant respectfully traverses the Examiner's rejection of claim 8 and view the combined Keller and Dubach references.

Prior to discussing the merits of the Examiner's position, the undersigned reminds the Examiner that The determination of obviousness under §103(a) requires consideration of the factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1 [148 USPQ 459] (1966): (1) the scope and content of the prior art; (2) the differences between the claims and the prior art; (3) the level of ordinary skill in the pertinent art; and (4) secondary considerations, if any, of nonobviousness. *McNeil-PPC, Inc. v. L. Perrigo Co.*, 337 F.3d 1362, 1368, 67 USPQ2d 1649, 1653 (Fed. Cir. 2003). There must be some suggestion, teaching, or motivation arising from what the prior art would have taught a person of ordinary skill in the field of the invention to make the proposed changes to the reference. *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988). But see also *KSR International Co. v. Teleflex Inc.*, 82 USPQ2D 1385 (U.S. 2007).

A methodology for the analysis of obviousness was set out in *In re Kotzab*, 217 F.3d 1365, 1369-70, 55 USPQ2d 1313, 1316-17 (Fed. Cir. 2000) A critical step in analyzing the patentability of claims pursuant to section 103(a) is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by

US Serial No. 10/56589
Page 10 of 14

the prior art references and the then-accepted wisdom in the field. Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher."

It must also be shown that one having ordinary skill in the art would reasonably have expected any proposed changes to a prior art reference would have been successful. *Amgen, Inc. v. Chugai Pharmaceutical Co.*, 927 F.2d 1200, 1207, 18 USPQ2d 1016, 1022 (Fed. Cir. 1991); *In re O'Farrell*, 853 F.2d 894, 903-04, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988); *In re Clinton*, 527 F.2d 1226, 1228, 188 USPQ 365, 367 (CCPA 1976). "Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure." *In re Dow Chem. Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988).

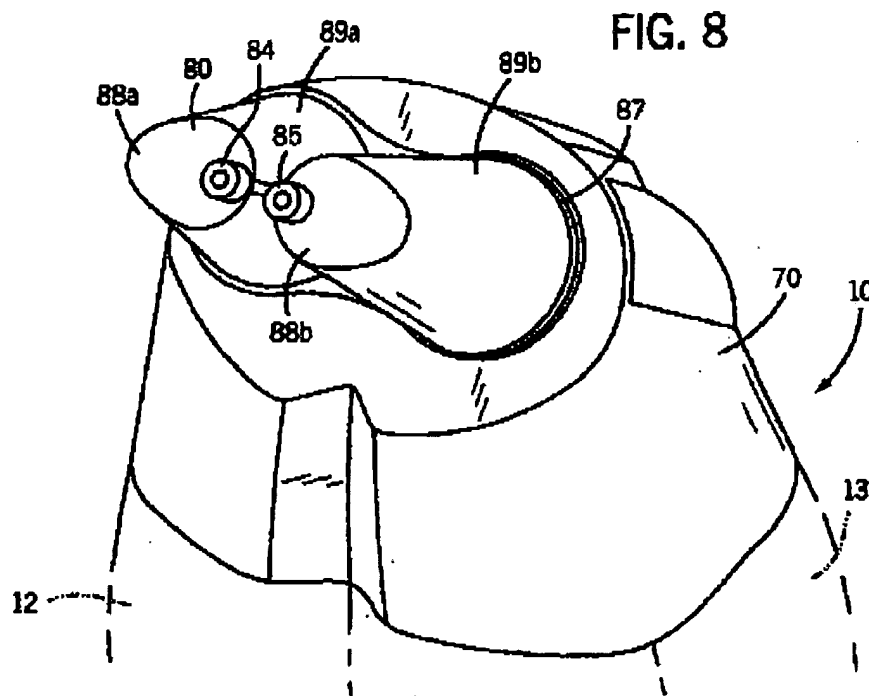
For the sake of brevity, the applicant you ran repeats and incorporates by reference the prior remarks made with regard to the Keller reference is being applicable to the current rejection. With regard to Dubach, as the examiner notes in the *Office Action*, the Dubach reference is relevant only in that it suggests the "... angling of the nozzle with respect to the container axis ...".

While the Examiner suggests that Dubach would suggest angling of the nozzle, nonetheless the combination of Dubach does not address, nor over, the inherent shortcomings and at the Keller reference which has been discussed above with regard to the rejection under 35 USC 102(b), and which is equally applicable to the present rejection. The Examiner's combination would, at best, suggests an angled nozzle according to the Keller reference but such would not provide the specifically claimed construction as is now recited in claim 1. The resultant combination would not provide

US Serial No. 10/56589
Page 11 of 14

for the type of nozzle as recited in claim one. Accordingly, reconsideration of the propriety of the rejection, and its withdrawal is respectfully requested.

Regarding the rejection of claims 9, 10 and 12 under 35 USC 103(a) in view of US 5458262 to Keller, in view of US 6758411 to Conway (hereinafter simply "Conway"): The applicant respectfully traverses the Examiner's rejection of claims 9, 10 and 12 in view of the combined Keller and Conway references. For the sake of brevity, the applicant you ran repeats and incorporates by reference the prior remarks made with regard to the Keller reference is being applicable to the current rejection. With regard now to the Conway reference, Conway's most proximate disclosure appears to be that relating to his Fig. 8, viz..



US Serial No. 10/56589
Page 12 of 14

Conway's article however does not function in the manner taught by the present applicants, or more specifically wherein at least one fluid stream flows along a deflector plate but either (a) provide a mixing of fluid streams only when deposited on a surface wherein the two liquids dispensed according to Conway's article first mix (as noted at col. 8 of Conway), but not before application on the surface:

15 The first orifice 84 and the second orifice 85 of the nozzle 80 can be configured to provide parallel streams of the first liquid and the second liquid. In one embodiment, the first orifice 84 and the second orifice 85 of the nozzle 80 are in the same plane or parallel planes and are spaced apart about 4 millimeters. In one form, the first orifice 84 and the second orifice 85 of the nozzle 80 do not share a common wall.
20 Spacing between the first orifice 84 and the second orifice 85 of the nozzle 80 limits contamination between the first liquid and the second liquid before and during dispensing because the streams are parallel, and also assures that mixing of the first liquid and the second liquid occurs on the surface being
25 cleaned, and not before application to the surface.

Or, alternately (b) provides for mixing of fluid streams some distance beyond the ends of the orifices (as noted by Conway at col. 8):

US Serial No. 10/56589
Page 13 of 14

The fluid paths leading to the first orifice 84 and the second orifice 85 of the nozzle 80 can also be configured to provide streams of the first liquid and the second liquid that converge at a distance from the first orifice 84 and the second orifice 85 of the nozzle 80. For example, in one configuration, the first exit opening 72 of the overcap 70 and the first orifice 84 of the nozzle 80 are eccentric, and the second exit opening 74 of the overcap 70 and the second orifice 85 of the nozzle 80 are eccentric. In other words, the axis of the first exit opening 72 of the overcap 70 is not coaxial with the axis of the first orifice 84 of the nozzle 80, and the axis of the second exit opening 74 of the overcap 70 is not coaxial with the axis of the second orifice 85 of the nozzle 80. Also, the fluid paths leading to the first orifice 84 and the second orifice 85 of the nozzle 80 can be tapered. As a result of the eccentric orifices 84, 85 and exit openings 72, 74 and/or tapering fluid paths, the streams of the first liquid and the second liquid may converge at a distance from the first orifice 84 and the second orifice 85 of the nozzle 80 even though the first orifice 84 and the second orifice 85 of the nozzle 80 are in the same or parallel planes.

Thus, Conway fails to teach or to suggest the current invention when considered separately, or even when considered in combination with Keller. It is the applicant's view that any combination of Conway with Keller would, of necessity require that the Conway device would need to include a downstream mixer as such it is an essential requirement according to Keller. Accordingly, reconsideration of the propriety of the rejection, and its withdrawal is respectfully requested

In view of the foregoing remarks, reconsideration of the rejections raised by the Examiner is respectfully requested, and early issuance of a *Notice of Allowance* is solicited. Should the Examiner in charge of this application believe that telephonic communication with the undersigned representative would meaningfully advance the prosecution of this application towards allowance, the Examiner is invited to contact the undersigned at their earliest convenience.